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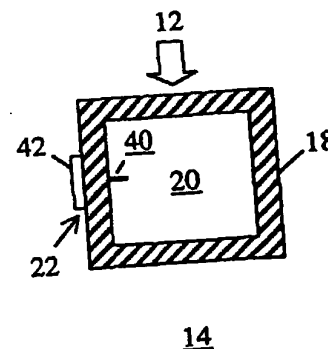
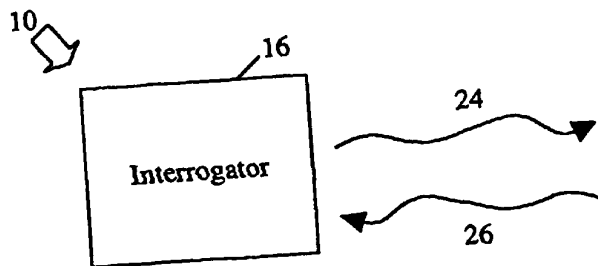
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For two-letter codes and other abbreviations, refer to the "Guid-
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ning of each regular issue of the PCT Gazette.

(54) Title: MEASURING STRAIN IN A STRUCTURE (BRIDGE) WITH A (TEMPERATURE COMPENSATED) ELECTRO-
MAGNETIC RESONATOR (MICROWAVE CAVITY)



(57) Abstract: The system (10) comprises a sensor (18) 90x90x90x30 mm as an electromagnetic microwave cavity (20) with a
coupler (22) with a wire (40) and an antenna (42). Cavity (20) produces a response signal (26) in response to an interrogation signal
(24) from interrogator (16). Sensor (18) is coupled to a structure (14) to allow a strain to alter the resonance properties. 3.6 GHz is
used with a detection of a 2.5 kHz change. If not temperature via strain is detected a mechanical amplifier is used with cavity (20) for
temperature compensation. Continuous or intermittent narrowband signals are used as interrogation signals (24). Used with bridges
for structural health monitoring. Also for aircrafts, dams, buildings, vehicles.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G01L1/25 G01B15/06 G01M19/00 G01D5/48 E01D19/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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☒ Patent family members are listed in annex.

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| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT | | Relevant to claim No. |
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INTERNATIONAL SEARCH REPORT

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